## Colt "Woodsman" Automatic Pistol

## Match Target Model with Heavy Barrel

Caliber .22 Long Rifle



The Match Target Model with heavy barrel has been designed especially for target use, and is equipped with adjustable rear target sight and special target stocks. The action is hand finished and a new type trigger has been provided to allow a more comfortable grip for target shooting. The entire top of the arm, as well as the back of the slide, and the upper part of the receiver have been stippled to eliminate all possibility of light reflection. The fixed front sight and the Stevens adjustable rear sight are also stippled. Adjustments for both elevation and windage are made on the rear sight.

The pistol is equipped with a Safety Lock which, when the arm is cocked, may be pushed upward, thus locking hammer and slide. This Safety Lock is located within easy reach of the thumb of the hand holding the pistol and may be instantly pressed down when raising the pistol to the firing position. It also acts as an indicator showing whether or not the pistol is cocked.

The slide may be readily removed from the frame, permitting the arm to be quickly and easily cleaned from the breech.

An extension of the frame at rear serves as a guard to prevent the hand of the shooter from slipping upward and being injured by the recoiling slide; this also acts as a guide to keep the hand in the same position for each shot, thereby aiding in accurate shooting. The grip or stock slants at a correct angle in relation to barrel and line of sight, giving the shooter the proper "hold" of the piece without wrist strain.

The magazine is provided with a thumb grip or pin which projects on the right side and enables the operator to compress or relieve the tension on the magazine spring to facilitate loading the magazine.

ACTION: The action of this pistol is automatic, except that the trigger must be pulled to fire each shot (continued discharges will not result from one pull of the trigger), the cartridges being supplied from a detachable magazine inserted in the handle of the pistol. After the pistol is charged with a filled magazine, one opening movement of the slide is made by hand, bringing the first cartridge into the chamber. On pulling the trigger the cartridge is fired, the empty shell ejected, the hammer cocked and a new cartridge loaded into chamber, all these operations taking place automatically without any manipulation of the arm. This automatic operation is effected by the recoil of the moving breech-slide and, as a consequence, the recoil being thus utilized is so absorbed that it has no disturbing effect.

SAFETY: Besides the automatic safety in the action which does not permit hammer to be released unless action is fully closed, this arm has a manual Safety Lock, which also acts as an indicator, showing whether the hammer is cocked or not. When the hammer is cocked, the Safety Lock may be pushed upward so that it will engage with the corresponding cut in the slide, locking the same, at the same time blocking all operating connection between the trigger and hammer, so that the hammer cannot be lowered while the Safety Lock is engaged with the slide. The Safety Lock can be pressed down by the thumb of right hand when ready to shoot, requiring no loss of time or extra motions.

## Colt's Patent Fire Arms Manufacturing Co.

SMALL ARMS DIVISION HARTFORD, CONN., U. S. A.



DETAILED DESCRIPTION AND OPERATION: The main parts of this pistol are the Receiver, Barrel, Breech-slide and Main-spring Housing.

The receiver has suitable guides for the reciprocating breech-slide. The hollow handle is the seat for the cartridge magazine. The magazine is inserted in the handle from below and there held by the magazine catch. When the catch is released, the magazine may be drawn from the handle for recharging.

In front of the handle is the trigger guard within which is located the finger piece of the trigger. The upper portion of the trigger extends into a recess in the receiver which also encloses the trigger spring and the trigger pivot. Longitudinally and rearwardly from this recess extends the trigger-bar, pivoted at its forward end in the top of the trigger and at its rear end engaging the sear or firing mechanism. All these parts are held in place and covered by the side plate secured to the receiver by a screw.

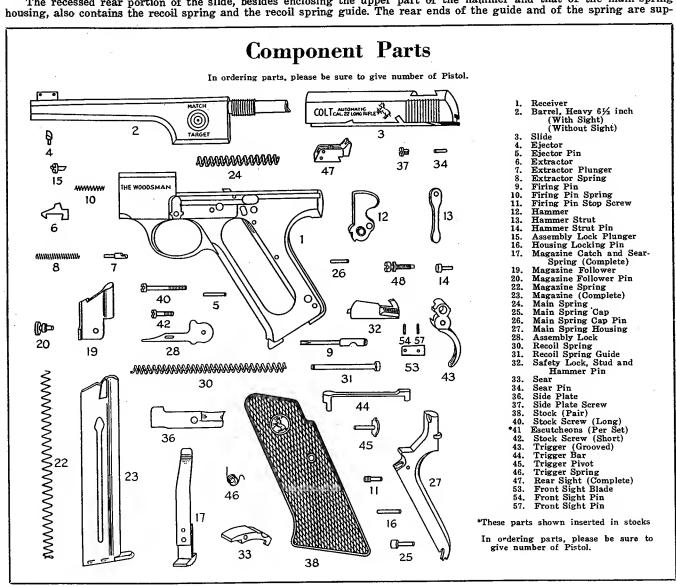
The barrel is firmly fitted in a long seat in the forward end of the receiver and kept therein by a screw-thread occupying a portion of the seat, this construction holding the barrel with great rigidity.

The magazine is a tubular holder in which the cartridges are placed one above the other resting upon a follower, which is pressed upward by a spring. The upper end of the magazine is provided with two spring ears which keep the cartridges under control during the functioning of the arm. The side walls at the rear of the opening are turned inward and engage the rim of the topmost cartridge to prevent its escape from the magazine except when it is pushed forward. The follower of the magazine may be operated by a thumb piece or button which projects through a slot on the right side, thereby enabling the operator to compress the magazine spring sufficiently as each cartridge is inserted to facilitate the loading of the magazine.

The breech-slide of this pistol in its solid forward portion forms the breech-bolt, in rear of which the slide is recessed for the reception of the hammer; the rear of the breech-slide is closed by an imperforate wall positively preventing escape of powder-gases rearwardly.

In the breech-bolt the firing pin and firing pin spring are seated, being held in place by the firing pin stop screw; the shell extractor, extractor plunger and extractor spring are located in the right side near the forward end of the breech-bolt.

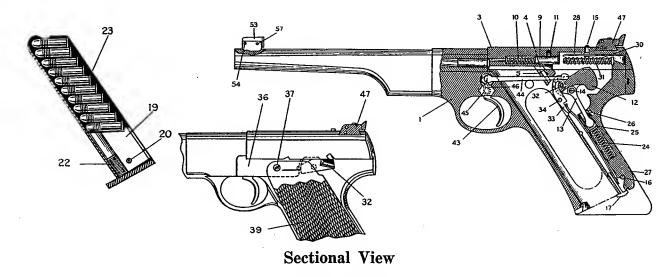
The recessed rear portion of the slide, besides enclosing the upper part of the hammer and that of the main-spring housing, also contains the recoil spring and the recoil spring guide. The rear ends of the guide and of the spring are sup-



ported by the face of the main-spring housing. The forward portion of the recoil spring is seated in the breech-bolt at the left side of the firing pin, and the tension of the spring yieldingly holds the breech-slide in its closed position. Above the recoil spring and guide, a flat spring supports the assembly lock plunger in its seat in the slide from the top of which it protrudes so that the plunger and spring may be at will depressed.

The automatic safety of the pistol positively prevents firing unless the breech-slide is in its forward closed position. This is effected by the co-operation of the trigger, trigger-bar and sear. The sear is a lever pivoted in the receiver in rear of the magazine seat so that its upper end supports the hammer at full or at half-cock. The sear-spring acting on the lower arm of the sear, yieldingly presses the upper end towards the hammer. On its left side the sear has an upwardly extending arm, the upper rear face of which is the part to which the motion of the trigger is transmitted by the trigger-bar.

The trigger-bar, pivoted at its forward end to the trigger, has a flat face in front of the pivot, against the lower part of which bears one end of the trigger-spring which is coiled around the pivot of the trigger. Its other end rests against the receiver. The trigger-spring thus serves to yieldingly raise the rear end of the trigger-bar and at the same time to yieldingly hold the finger piece of the trigger in its forward position. At its rear end the trigger-bar is provided with two projec-



tions. An upward projection rises into the path of the breech-slide, the lower left-hand edge of which bears upon this projection so as to force down the rear end of the trigger-bar whenever the breech-slide moves rearward from its closed position. To allow the trigger-bar to rise when the breech-slide is in the closed or firing position, a recess is cut into the lower edge of the slide so located as to be above the projection on the trigger-bar and so that the same may rise into the recess when the slide arrives at its closed position; but so that the inclined forward end of the recess at once depresses the trigger-bar as soon as the breech-slide moves rearward, as by its recoil on firing.

The connection between the trigger-bar and the sear consists of a lateral inward projection on the end of the bar which, extending through an opening in the wall of the receiver, when the slide is closed, stands just in rear of the upper rear face of the sear; thus, when the trigger is pulled and its top and the trigger-bar are moved forward, the inward projection on the bar engages the sear arm and causes the sear to release its hold upon the hammer, as for firing a shot. If the trigger is pulled while the breech-slide is not in the forward firing position, the rear end of the trigger-bar, having been depressed by the motion of the slide, as explained above, the projection of the bar, instead of engaging the upper rear face of the sear arm, enters the recess below this part and is thus prevented from moving the sear, which retains its hold upon the hammer, thus preventing firing.

This construction and operation, besides acting as an automatic safety, as just described, also serves to control the firing by preventing more than one shot to follow on each pull of the trigger.

When the trigger is pulled and a shot fired, the breech-slide at once recoils, ejects the empty shell, depresses the rear end of the trigger-bar, cocks the hammer and is returned forward by the recoil spring, thus again loading the pistol by transferring a cartridge from the magazine to the chamber in the barrel. These automatic operations occur very rapidly and are completed before the pull upon the trigger has ceased and before the finger can release the trigger. At the first recoil of the slide the rear end of the trigger-bar is depressed, and by the continued pull on the trigger the lateral projection on the bar loses its hold upon the rear face of the sear and enters into the recess below the face. This leaves free the sear so that, under the action of the sear-spring, it again engages the hammer as soon as the recoiling slide has cocked it, and holds it cocked ready for the next shot. On the return of the breech-slide forward, the recess in the edge of the slide again being brought over the upward projection of the trigger-bar, the bar would be at once raised by the trigger-spring into line with the face of the sear; but this is prevented by the part of the sear above the recess which continues to hold the bar in its depressed position, until the pull on the trigger is released and the finger piece of the same is allowed to return forward, thereby moving the bar rearward, allowing the lateral projection to escape from the recess in the sear and to be returned upward in line with the face of the sear, ready to engage the same if the trigger is again pulled. By this action only one shot can follow upon each pull of the trigger.

The main-spring and main-spring cap are seated within the main-spring housing and there held by the main-spring cap pin.

The hammer is located in the receiver and pivoted upon a bushing and a pin which is a part of the manual safety lock and, extending fully through the receiver is supported therein on each side of the hammer. The hammer strut is attached to the hammer in rear of its pivot by the strut pin with its lower end resting in the main-spring cap. The hammer in addition to a full cock notch is provided with a half-cock or safety notch.

The ejector is seated in a slot in the top of the receiver near the center and is there fixed by a transverse pin.

The manual safety lock is so arranged that in its upper locking position the projection thereon enters a corresponding recess in the slide, thus locking the slide and at the same time the stud on its inner face extends through an opening in the receiver, thus locking the sear and the hammer in the full-cocked position. The safety lock has on its forward end a projection which is covered by the side plate, which acts on it as a spring which keeps the safety lock from jarring out of position during firing.

The sear-spring is a flat spring seated under and tensioned by the main-spring housing, the lower end of the spring being fastened to and held in position by the magazine catch; the catch in turn is held in place by a transverse rib fitted in

a slot in the rear wall of the magazine seat.

The main-spring housing at its lower end is fitted to rest on a transverse pin near the bottom of the receiver while the tension of the sear-spring keeps it in place; the upper end of the housing extends above the receiver into the breech-slide where it is vertically kept in place and where its upper portion forms the rear abutment by which the breech-side is positively kept from flying rearwardly from the receiver.

TO DISMOUNT: Remove magazine by pressing the magazine catch. (After removing magazine, look to see that there is no cartridge left in the chamber.)

With pistol in left hand, grasp slide between thumb and middle finger of right hand and pull to rear as far as it will go. Then with index finger of right hand, push down assembly lock plunger (on top of slide), and while holding pressure on plunger allow slide to move forward to closed position. When fully closed, pull trigger and release pressure on assembly lock plunger.

With thumb of right hand press on housing at point where same is knurled; pressure should be exerted upwards as well as in. This will release housing from receiver and it may be withdrawn; at the same time magazine catch and sear-spring

(which are pinned together) are released and can be taken from arm.

Slide can now be drawn rearward from receiver.

TO ASSEMBLE: Place slide on receiver and push forward to closed position.

Insert magazine catch and sear-spring in position, being sure that lug on magazine catch fits into slot provided for same in handle, sear-spring resting on sear and under hammer strut. (See sectional view, page 3.) The hammer must be in forward position with hammer strut resting on sear-spring (pull trigger to insure hammer being fully forward).

Place top of housing under end of receiver and resting on sear-spring. Press on lower end of housing, causing it to

snap into place.

The foregoing is all the dismounting necessary to clean and properly care for the arm.

NOTE - If, at any time, during the taking apart or assembling, the recoil spring should jar off from the assembly lock, it should be again pressed into its forward position and held secure by pressing down the assembly lock plunger.

A convenient way to replace loaded magazine is to first draw back slide, lock it open with "Safety," then insert magazine and permit slide to return to forward or closed position.

It should be remembered that drawing the slide to rear cocks the pistol, ready to fire; therefore, if it is desired to carry the arm loaded, the Safety Lock should be pushed up (See "Safety," page 3).

Always clean and oil inside of barrel and chamber as soon after firing as possible. Keep slide grooves clean and well

oiled. Occasionally a few drops of light oil should be placed in the magazine. Never use heavy oil.

TO COMPLETE DISMOUNTING: Remove stocks. Remove side plate screw and then side plate. Lift out safety lock (safety lock also acts as hammer pin).

Remove hammer and strut. Strut may be removed from hammer by driving out strut pin.

Next drive out sear-pin permitting sear to drop out.

The trigger can be taken out by pressing against right side and at same time this will remove trigger pivot spring and bar. Ejector can be removed by first driving out ejector pin. Recoil spring and guide can be taken out by holding slide in left hand, pressing against recoil guide with a small screw driver or punch; this will disengage assembly lock spring; relieve pressure on guide until end rests against rear of pocket in slide; it can now be lifted out. Assembly lock and spring are removed by first lifting front end of spring sufficiently above locking lug and by the aid of a small punch resting against rear of pocket in slide, pry forward until lugs on spring enter recess cut on each side of pocket; turn right side up assembly lock and spring will then fall out.

To remove firing pin and spring take out firing pin stop screw located in bottom of slide, hold slide in vertical position,

front end up; firing pin will drop out.

To remove extractor press plunger as far back as will allow a pointed instrument to be inserted through small aperture; this will block plunger and allow extractor to be lifted out.

It is advisable not to remove barrel.

The magazine may be dismounted readily by pressing down follower until follower pin can be withdrawn through aperture on right side of magazine. The follower will then rise to top and can be removed by turning front top to rear to allow lugs on bottom of follower to pass under cartridge spring ears; remove spring.

TO ASSEMBLE COMPLETE: Insert ejector and drive in pin; assemble sear with lug on top left side of receiver, drive in pin, then assemble trigger, with head of pivot pin on left side, also trigger bar; insert spring on right side of trigger with pivot pin passing through coils of spring, one end of which should engage flat on trigger bar with the other end resting in notch in trigger; now place trigger mechanism into position on left side of receiver having end of spring resting against front of trigger clearance cut and trigger bar lying in slot.

Next assemble hammer, strut and pin; place in position in receiver; insert safety lock, the long lug on this part should pass through hammer. Place side plate in position and screw on. Assemble stocks and screw on.

To assemble slide, place spring on extractor plunger and insert in slide, having flat on under side of plunger; compress spring and hold plunger back with small punch or knife blade through aperture; insert extractor and allow plunger to move forward; try extractor to see if in working order. Place spring on firing pin, insert in slide, press forward and screw in stop pin. Place assembly lock plunger in counterbored hole, having plunger match with contour on top of slide, insert spring, pressing down and at the same time driving it back until plunger engages small aperture in spring.

Place recoil spring on guide pin, insert in slide pushing it back until guide pin can be forced down into position, now press

guide pin forward until assembly lock spring can be pressed down by the plunger, the point of which will engage groove in end of pin and hold it until ready to assemble slide on receiver.

The pistol can now be put together as stated in the previous assembling operations.

To assemble magazine, insert spring, turn in lugs on bottom of follower by first entering through front of and under cartridge spring ears, press follower down, insert follower pin through corresponding aperture on right side of magazine tube.